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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,296	03/09/2000	Harunobu Kusumoto	8203-341	3309
7590	03/23/2004		EXAMINER	
Liniak Berenato Longacre & White 6550 Rock Spring Drive Suite 240 Bethesda, MD 20817			PASSANITI, SEBASTIANO	
			ART UNIT	PAPER NUMBER
			3711	19
DATE MAILED: 03/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/522,296	KUSUMOTO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Sebastiano Passaniti	3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on Board Decision of 12/31/2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 22-27 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-16, 18-21, 28 and 29 is/are rejected.
- 7) Claim(s) 17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

This Office action is responsive to a decision by the Board of Patent Appeals and Interferences, mailed 12/31/2003.

In view of the remand set forth in the 12/31/2003 decision, applicant's attention is directed to the following action on the MERITS:

Claims 1-29 remain pending.

Claims 22-27 STAND withdrawn from further consideration.

The following grounds of rejection apply to claims 1-21, 28 and 29.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6, 7, 8, 9, 10, 11, 12, 14, 15, 18, 28 and 29 are rejected under 35 U.S.C. §102(b) as being anticipated by Mockridge (GB 2230459). Applicant's attention is directed to the disclosure in Mockridge at page 1, lines 20-22 and in claims 1 and 4 thereof, which appear to describe an embodiment of the "metal wood" club head therein where the socket or shaft securing portion (19) is cast integrally with the first hollow

shell part (11) and extends to and is secured to a separately formed sole plate member (18) by welding. The portion designated by reference character (15) in Mockridge is said to be the "bottom" of the club head and would appear to be properly termed a "sole portion" (emphasis added) integrally formed as part of the shell part (11). Thus, the unillustrated embodiment of the golf club head in Mockridge would appear to be fully responsive to that set forth in applicant's claim 1, even though the shaft securing portion is not integrally cast with a connection to the sole plate (18). The unillustrated embodiment of Mockridge would also appear to be fully responsive to that set forth in applicant's claim 28 for reasons similar to those advanced for claim 1, supra.

Specific to claim 3, Figure 1 clearly shows a second hollow portion between the shaft securing portion and the face portion (13).

As to claim 6, the shaft-securing portion includes a hole from its upper end and throughout its length to its lower end.

As to claim 7, the shaft-securing portion may be cast separately and thus includes its own top and bottom portion. In other words, the bottom portion would include that portion of the cylindrical wall perimeter that lies in a common plane. The shaft-securing portion can have a hole extend throughout its length and still have a bottom.

As to claim 8, the bottom of the shaft-securing portion engages the plane of the sole and thus is formed in the same surface of the sole portion.

As to claim 9, the bottom of the shaft-securing hole and the sole have substantially the same thickness.

As to claim 10, the shaft-securing portion may be integrally cast with the body (page 1, lines 20-22).

As to claim 11, the shaft-securing portion clearly includes a cylindrical shape from the top to the sole portion, with the interior of said cylindrical shape dimensioned to accept a cylindrical lower shaft portion (21).

As to claim 12, Figures 2 and 3 clearly show that the first hollow portion is formed such that a clearance of at least 1 mm is defined between the shaft-securing portion and the heel wall.

As to claim 14, since the shaft securing extends at an angle from the top to the sole, it is clear, as shown in Figure 2, that the width of the hollow portion between the shaft-securing portion and the heel wall is greater nearer a sole of the head than a top portion of the head.

As to claim 15, as the sole and the heel are distinct portions of the head, it is clear that an edge is formed between the sole and the heel wall.

As to claim 18, a portion of the shaft-securing portion (19) clearly extends above the head body to form a hosel (Figure 2).

As to claim 29, the top portion of the club head body is provided with an aperture (joining hole) to accommodate the shaft-receiving element (19).

Claims 2, 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mockridge (GB 2230459) in view of Motomiya. Mockridge differs from the claimed invention in that Mockridge fails to disclose or suggest a separate face portion as well as a forged or press worked face. Motomiya acknowledges that club heads formed by

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the lost wax process, e.g., cast club heads, often suffer from pinholes and cracks (col. 1, lines 16-21), noting that forged pieces substantially eliminate said pinholes and cracks (col. 1, lines 36-40). Further, Motomiya shows the commonness of fashioning the head from plural forged elements, with the face making up a distinct part and mated to the remainder of the shell to form a hollow structure (col. 3, lines 3-6 and Figure 3). The incorporation of press forging to generate separate club head parts is deemed to be advantageous by Motomiya from a manufacturing point of view (col. 4, lines 19-25). In view of the patent to Motomiya, it would have been obvious to modify the device in the cited art reference to Mockridge by substituting a forging process for the casting procedure disclosed by Mockridge, the motivation being to produce a high quality club head that is substantially free of defects such as cracks and pinholes. Further and in view of the teachings in Motomiya, it would have been obvious to provide a separate face united to a club head body as opposed to fashioning a unitary cast body, the motivation being to make it desirable to mass produce the club heads, i.e., make the club heads use a less expensive process.

Claims 13, 20 and 21 are rejected under 35 U.S.C. §103 as being unpatentable over Mockridge in view of Minabe. Mockridge, as modified, differs from the claimed invention in that Mockridge does not disclose the claimed wall thickness that is required by claim 13 nor the particular materials defined in claims 20 and 21. Minabe teaches a wall thickness of 1.2 mm (col. 3, lines 29-31) to reduce the weight of the head. Minabe further outlines that a pipe-guiding groove (34), which is deemed to serve as a support portion, attaches the shaft-securing portion (24c) to the heel portion. Still further,

Minabe makes reference to  $\beta$ -type materials for both the face and the head, although notes that other titanium alloys may be used (col. 3, lines 25-38). These materials provide the required rigidity for the club head. In view of the patent to Minabe, it would have been obvious to modify the Mockridge device to include these claimed features, the motivation being to make the club head both lighter in weight and rigid and to more securely retain the shaft securing shaft portion.

Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mockridge in view of Endo. To have fashioned the Mockridge device to include a first upper end of the inside of the toe portion to be higher (in height) than the upper end of the inside portion of the heel portion in order to accord the Mockridge club head with a more traditional shape would have been obvious in view of the patent to Endo (Figure 6) which shows it to be old in the art of hollow metal club heads to provide this feature.

Claim 19 is rejected under 35 U.S.C. §103 as being unpatentable over Mockridge in view of Mills. To have further modified the Mockridge device such that the shaft securing portion does not protrude above the top portion to provide an even, finished appearance would have been obvious in view of the patent to Mills which shows it to be old in the art to provide a shaft securing element (Figures 4, 5) that remains confined within the head. Note that Mills details that the club head construction he details is not limited to clubs formed exclusively formed of wood material.

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by applicant's admission of prior art (Figure 28) and the description thereof bridging pages 4 and 5 of applicant's specification as being from Japanese Patent Publication No. 10-295857.

Although there is no mention of “casting” per se, the patent does detail an integral molding process. The skilled artisan would have found it obvious to form such a hollow shell structure by casting, since casting is well known as a common manufacturing technique in the production of hollow metal club heads.

Claim 1 is rejected under 35 USC §102(b) as being anticipated by Take . Reference is made to Figure 5 and the description thereof in column 1 of that patent as being disclosed in Japanese Patent Unexamined Publication No. 5-96013. Although there is no mention of “casting” per se, the patent does detail an integral molding process. The skilled artisan would have found it obvious to form such a hollow shell structure by casting, since casting is well known as a common manufacturing technique in the production of hollow metal club heads.

Claim 28 is rejected under 35 USC §102(b) as being unpatentable over Drajan. Reference is made to Figure 1 of Drajan.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 28, there is no proper antecedent basis for the reference in line 3 of the claim to “a top portion”. A top portion of what?

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As to claim 29, it would appear that the recitation of "a sole portion fixed to said top portion" is ambiguous, as is the recitation of a joining hole provided "with the other of said top portion and said sole portion".

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

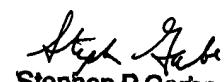
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sebastiano Passaniti whose telephone number is 703-308-1006. The examiner can normally be reached on Mon-Fri (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sebastiano Passaniti  
Primary Examiner  
Art Unit 3711

S.Pasaniti/sp  
March 21, 2004

  
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